

INDEX OF SURGICAL PROGRESS.

GENERAL SURGERY.

I. The Toxic Effects of Iodoform, Especially in the Causation of Skin Eruptions. By R. W. TAYLOR, M.D. (New York). The author tabulates nine cases of his own, and thirteen others drawn from literature, as follows.

No.	Reported by—	Sex.	Age	Nature of Skin Lesion.	Time of Appearance.	Constitutional Symptoms.
1	Taylor.	M.	21	Intense erythema	3 hours.	None.
2	"	M.	32	Erythema scarlatiniforme.	Few hours.	Anorexia, fever, headache, and giddiness.
3	"	F.	28	Erythema erysipelatodes.	2 days.	Vomiting, diarrhea, headache, delusions, fever.
4	"	F.	26	Erythema multiforme.	12 days.	Fever, malaria, dizziness, and drowsiness.
5	"	M.	34	Erythema scarlatiniforme.	Second day.	None.
6	Zeissl.	M.	3	Erythema.	14 days.	High fever, vomiting, and albuminous urine.
7	"	M.	36	Erythema urticarum.	10 days.	
8	Janowsky	M.	28	Erythema.	Probably day.	Fever.
9	"	M.	22	Papular erythema	24 hours.	None.
10	"	M.	31	Erythema.	48 hours.	None.
11	"	M.	24	Papular erythema.	13rd day.	Fever.
12	"	M.	48	Erythema bullinsum.	Third day.	Mild fever.
13	Köster & Dyke.	M.	Not given.	Erythema bullosum.	Short time.	Not given.
14	Treves.	F.	13	Papular and vesicular erythema.	14 days.	Fever, headache and giddiness.
15	Taylor.	M.	27	Eczema madidans.	1 day.	None.
16	"	M.	36	Eczema madidans.	3 hours.	Headache, loss of appetite, nervousness, and malaria.
17	Taylor & Stein.	M.	31	Eczema madidans.	Few hours.	None.
18	Putnam	F.	About 20	Eczema rubrum.	Few hours.	Slight fever.
19	Hitherto unpub.	M.	61	Eczema madidans.	Few hours.	None.
20	Taylor.	M.	27	Eczema madidans.	24 hours.	None.
21	Fabre.	F.	Ynang.	Eczema madidans.	24 hours.	Mild delirium, weak and irregular pulse.
22	Fifield.	F.	41	Eczema madidans.	9 days.	None.
23	Goodell.	F.	27	Eczema madidans.	Third day.	None.
24	Janowsky	F.	17	Purpuric spots.	Uncertain.	Death on 14th day; fatty degeneration of heart, liver and kidneys.
25	Hoepf.	F.	37	Red spots.		

With regard to the skin eruptions produced by iodoform he remarks that the erythemata due to iodoform present many of the features of similar simple eruptions, and to those due to other drugs. Their mode of invasion is prompt, and their extension rapid. They may increase from an original focus of contact with the drug, and may extend over parts of, or over the whole body, or they may also thus begin and be met with patches which have developed in parts remote from the point of the invasion. Then, again, a more or less general erythematous rash may follow the simple act of smelling the agent, without any contact whatever. Reaching their full evolution in one or several days, they, under favorable circumstances, rapidly undergo involution, behaving much like the ordinary erythemata, except that their course is usually even more rapid.

Various forms of erythema have been noted. In some instances it is a very superficial and comparatively mild, pinkish exanthem; in others it is still superficial in character, but very deep in hue, and may be termed scarlatiniform, so great is the dermal congestion. Then, in rather exceptional cases, and usually in those presenting more or less grave constitutional symptoms, the erythema presents, in its hue and brawny feel, points of resemblance to erysipelas. While some cases have presented lesions similar to erythema iris and erythema urticatum, others have been observed of the papular, vesicular, and bullous forms, and come under the head of erythema multiforme. The toxic action of iodoform, therefore, may show itself on the skin in all the forms of erythema.

The eczema caused by iodoform is usually of severe form and of rapid evolution. It may begin at the point of contact with the drug, or it may develop in parts far distant, or again appear in one or in several spots—such as the hands, face, and trunk—simply from smelling of the drug. Its character is pronounced from the first; much surface is rapidly involved; the erythema and infiltration go promptly on to vesiculation and the formation of a well-marked weeping surface, in all respects similar to the ordinary eczema madidans. In most cases the involution is almost as rapid as evolution, provided the toxic agent is removed. But in some instances, perhaps of debility, of marked

eczematous tendency, or of excessive idiosyncrasy, the affection shows a tendency to become chronic. It is usually very amenable to treatment.

The systemic symptoms presented in the foregoing cases varied considerably in degree. The author adopts Nussbaum's division of the symptoms of iodoform poisoning, making three degrees.

The first is comparatively mild. A loss of appetite, headache, disturbance of disposition by excitation or depression, a mild delirium or loss of memory, and sleeplessness may be observed.

In the second degree there are absolute anorexia, an intensification of the head symptoms, perhaps dementia, mania, or melancholy, weak and rapid pulse, mild fever, and emaciation.

The third degree is a continuation and intensification of the second. Such patients lie perfectly abject in sopor, with a rapid, thready pulse and a cold surface, and die in a collapse.

The systemic symptoms in the majority of cases of iodoform exanthems belong to the first and second degree. In but one case did they go on to the third degree and end in death.—*New York Med. Jour.* Oct. 1, 1887.

II. The Antibacterial Action of Iodoform. By J. A. JEFFRIES, M. D. (Boston). As the result of a large number of culture experiments the author deduces the following conclusions.

Iodoform markedly retards the growth of bacteria, and diminishes the foul orders of putrefaction.

Iodoform is not a germicide, and is, therefore, not capable of procuring asepsis of instruments, materials or wounds.

Iodoform checks secretion from wound surfaces, and by producing food famine among germs present becomes of value in wounds, where the moisture threatens the integrity of the aseptic or antiseptic dressing.—*Amer. Jour. Med. Sci.*, Jan. 1888.

III. The Infectious Nature of Traumatic Tetanus. By E. O. SHAKESPEARE, M. D. (Philadelphia). This is a preliminary report based upon a series of experiments upon animals still in progress.

Two methods of inoculation were employed, intra-cranial, after the method of Pasteur in rabies, and intermuscular—both with all antiseptic precautions, and sterilized instruments.

The inoculated material was obtained from the medulla, or cord of animals dead from traumatic tetanus. It is concluded (1) that traumatic tetanus of the horse and mule is, at least sometimes, if not always an infectious disease, transmittable to other animals, and therefore possibly also to man; and during the progress of this disease a virus is elaborated and multiplied, which is capable of producing the same infectious disease in some other animals when placed beneath the dura mater of the cerebrum. (2) This virus is contained in the medulla and spinal marrow of the animals suffering from the disease. It is like the virus of hydrophobia, capable of being strengthened in virulency by inoculation *sub dura cerebri* from rabbit to rabbit, and, like the virus of hydrophobia, is capable of attenuation by exposure for a sufficient time to action of dry air at a temperature of summer heat, and still, again, like the rabic virus, its effects are far more intense when the virus is inserted beneath the dura-mater cerebri than when injected beneath the skin, or between the muscles of the back.—*Boston Med. and Surg. Jour.*, Sept. 15, 1887.

JAMES E. PILCHER (U. S. Army).

IV. The Infectious Nature of Boils. Case of Pneumonia Due to the Parasite of Furunculus. By Dr. ERNEST CHAM-BARD (Paris). There has always been a popular idea that boils are catching, and it has even given rise to the saying that "one boil means nine." The theory of the infectious nature of furuncles has now been proved. There are not only arguments of a clinical order in its favor, such as the reports of epidemics of the disease, and the cases of persons who undoubtedly get it after using basins or objects contaminated by others who had boils, but there are also the results of recent bacteriological researches. A distinct microbe has been found in the pus of boils, which is constant and can be cultivated. There is a good account of it in Cornil and Ranvier's recent book. They describe it as a staphylococcus pyogenes aureus of Rosenbach, consisting of cocci

placed in twos, rarely in fours and often found grouped in large masses. In gelatine and especially in agar-agar a fine orange yellow cultivation can be produced. They do not look upon it as special to furuncles or anthrax, but find it in many suppurative affections, pyemia, osteomyelitis, and puerperal fever.

These micrococci were found in great quantities in a case which Dr. Chambard reports, and which is one which goes far to support the theory. It is that of a general paralytic who three months after his admission to the Asylum of Ville Evrard, was found to have a large carbuncle in the back. This was opened and treated locally with iodoform. The carbuncle went on spreading, and two days after the patient died from double apex pneumonia. At the post mortem the lungs were found studded with small yellow nodules the size of cherry stones, those situated near the surface forming small prominences. In some parts where they were very thick, the lung tissue was broken down and small cavities were formed. From these some caseous pus could be squeezed. The very same microbes were found by the microscope in this pus as were found before death in the pus from the carbuncle, and they were the only ones found. They were most abundant in the small hæmorrhagic patches.

The presence of these cocci shows the mistake of treating carbuncles with poultices, which by the continued heat and moisture can only tend to favor their propagation, and suggests the wisdom of an antiseptic treatment.—*Progrès Médical*, July 30, August 6 and 13, 1887.

LEONARD MARK (London.)

V. Acute Idiopathic Myositis. By Dr. E. WALTHER (Singen). This paper contains a collection of cases of acute suppurative myositis (idiopathic) and a consideration of the pathology of the affection. The author classes it among the severer inflammatory affections, peritonitis, osteomyelitis acuta spontanea, pseudo-erysipiel. It is a disease of mycotic origin and, as investigations of Rosenbach show, is due to the agency of the staphylococcus aureus and albus, and streptococci pyogenes. The avenue of penetration of the infectious element into the muscle is not clear in all cases, but there are condi-

tions as severe muscular exertion, contusions, etc., which predispose these structures to the reception of these micro-organisms. Dull, severe, increasing pain, inability to use the affected muscle, swelling of the muscle and extreme tension are among the principal symptoms. One or many abscesses may form. The prognosis differs, in some cases threatening the life of the patient. Of 19 cases collated 8 ended fatally. If the patient recovers and the abscess has not been large the use of the affected muscle is gradually recovered. The most frequent complications were erysipelas and tuberculosis of the lung. The author brings forward nothing new as to pathology of the affection, quoting largely from Rosenbach. The treatment is an antiseptic treatment of suppurating areas.—*Zeitschr. f. Chir.*, Bd. xxv, hft. 3.

H. KOPLIK (New York).

VI. The Administration of Cantharides in Rabies. By M. LOUKOMSKY. This is a popular remedy in Ukraine. When an animal has been bitten by another one which is suffering from rabies, the custom is to make it eat a dry Spanish fly which has been cut up into small pieces and mixed with some bread. For two or three days afterwards it is made to drink a decoction of broom tops (*genista sagittalis*). In 1840 the author had 5 peasants under his care, all bitten by a mad wolf. One of them would not submit to the cantharides treatment and died from hydrophobia. The other four had an ointment made of cantharides applied to the bites, and internally they took two daily doses of calomel (5 centigrammes). They also took two glasses a day of an infusion of brooms and wild elder. The use of the cantharides was temporarily suspended on the appearance of any scalding in the urethra. The treatment was continued for two weeks. None of these patients had hydrophobia. The author has lately treated with equal success two persons who had been bitten by a mad dog. Three men are mentioned who had been bitten in the face and hands by a mad wolf and who were well seven months after the accident followed by the above treatment. The author's servant was also bitten four years ago by a mad dog. The wound was cauterized next day with hydrochloric acid, and the patient was given a hypodermic in-

jection of 1 centigramme of pilocarpine hydrochlorate. On the third evening 25 milligrammes more of the pilocarpine were injected. On the fourth day the patient had some sudorific administered and was made to take a Russian bath.—*Gazette Médicale de Paris*, January 29, 1887.

LEONARD MARK (London).

VII. Congenital and Acquired Hypertrophies. By Dr. PAUL WAGNER (Leipzig). Among the cases of coegeoital hypertrophies are those rare cases in which the hypertrophy extends over the whole of one half of the body. Two such cases are recorded in the literature. In most cases there was a hypertrophic disturbance on the lower extremities, while the arm and hand remained less affected. In some cases the soft parts alone, in others soft parts and bones were affected. In the author's recorded case the soft parts only were involved. The case is in other respects interesting.

There were areas scattered over the body of venous hyperæmia, in other parts than those the seat of hypertrophy. It occurred in a male child, æt. 11 years. There was no asymmetry of the head, but the cheeks, the lips, and tongue were plumper on the left than on the right side. The left hand and foot were plumper and more developed in size than the right foot and hand; on both sides of the body were the spots of venous hyperæmia. The arm and fore-arm, thigh and leg of the left side were longer than those on the right side. Exact measurements are given. The extremities did not differ in length. The electrical reaction was not abnormal, nor was there any abnormalities established on the internal organs or blood-vessels of the body. The author is inclined etiologically to place the origin of these hypertrophies with the embryonal processes (Cohoheim) rather than with the nervous system. The more common variety of coegeoital hypertrophies involves the extremities or portions of the same. Busch divides these as above, into those involving the soft, and those including the soft and bony parts. Wittelshöfer has collected 46 cases of partial congenital hypertrophies, including 3 cases of Billroth. Fischer has observed this hypertrophy quite frequently in the Breslau clinic. The author here records also 3 cases of partial hypertrophies occurring in

Thiersch's clinic. One interesting case showing congenital makro-daktyly with syndaktyly of the second and third fingers of the left hand and absence of the fourth and fifth fingers. In one of the author's cases, as in one recorded by Fisher, there was trophic disturbance in the shape of a deep spreading ulceration, on the plantar surface of the hypertrophied foot with an analgesia dolorosa. In this case the ulceration necessitated amputation of the foot. There was in none of the author's cases a hereditary predisposition to the development of such growths. The author also discusses the acquired hypertrophies of later life, recording one case occurring in the Leipzig clinic. A woman, æt. 38, developed a rapidly increasing elongation of the fingers and toes on both sides of the body. The bones only were affected. The soft parts being free from hypertrophy, the bones were increased in their long measurement, the skin was glossy and appeared as if stretched over the bones. The soft parts were not affected, other parts of the body were not abnormal in any degree. The process, after proceeding to a certain degree, on all the bones of the fingers and toes came to a standstill after a time. The author classifies this case with others, among which is the Fritsch-Klebs case of akromegalie. In the latter case a careful microscopic examination showed an ostitis vascularis of an organizing and formative nature. Prognosis in a case like the author's, when the process had ceased after a time would seem to be a favorable one. The symptoms on the part of the nervous system as in author's case would require the Weir-Mitchell treatment.—*Zeitsch f. Chir.* bd. 26, heft. 3 and 4.

HENRY KOPLIK (New York).

OPERATIVE SURGERY.

I. The Use of Ligatures on the Limbs during Surgical Operations. By L. M. SWEETNAM, M. D. (Toronto). Each of the patient's extremities is surrounded at its base by an elastic ligature sufficiently to obstruct the venous, without interfering with the arterial circulation, without regard to the location of the operation. This method decreases the time and the amount of anæsthetic required to

produce anæsthesia, and lessens the after effects, and makes the operation practically bloodless, particularly if the ligatures be applied ten or twelve minutes before the incision, and diminishes the loss of blood, while the loosening of one or more ligatures affords prompt reaction in case of collapse. Care should be exercised if the patient has a history of purpura, varicosities should be bandaged, the head should be kept low to obviate cerebral anæmia, and the wound should be watched for five or ten minutes after removing the ligatures to check after hemorrhage. The constriction may with perfect safety be kept up for two hours, but it is well to wrap up the limb to prevent serious loss of heat.—*New York Med. Jour.* Dec. 17, 1887.

JAMES E. PILCHER (U. S. Army).

II. Ignipuncture in Tuberculous Tumors. By Dr. GENZMER (Halle). In a large number of cases of tubercular glands, the author has used the platinum-cautery, after previous incision of the skin. Where they were small he introduced a fine cautery once, where larger, then a wider cautery repeatedly. In a few weeks they became smaller, even quite disappeared, so that a cure could be positively claimed. He then proceeded similarly with larger swellings, *i. e.* five cases of tuberculosis of the testicle, with entire success in 2 and diminution of the tumor in 3. He had also used it advantageously for goitre and prostatic hypertrophy.

Volkman doubted the permanency of the result.—*Rept. of XVI Germ. Surg. Congress in Centbl. f. Chirg.*, 1887, No. 23.

WM. BROWNING (Brooklyn).

NERVOUS AND VASCULAR SYSTEMS.

I. Rupture of the Radial Nerve Resulting from a Complicated Luxation at the Right Elbow Joint, Successful Secondary Nerve Suture. By Dr. G. LEDDERHOSE (Strassburg). The author records a case of traumatic division of the radial nerve with consequent paralysis of all the muscles of hand and forearm supplied by it. The patient, a woman, *æt.* 32, sustained a compound dislocation backward of the bones of the forearm at the elbow joint on the right side. There was after

reduction suppuration and consequent fixation of the forearm in the semi-flexed position, with the paralysis above mentioned. The wounding of the soft parts occurred on the right side of the elbow joint. Five months after accident the author operated, dissecting out the radial nerve, whose torn extremities were fixed in cicatricial tissue around the joint. The torn ends were pared obliquely opposed and sewed directly with silk, the nerve trunk was fixed also by sutures to the surrounding parts. Primary union. Cases of this kind are extremely rare. Hamilton or Drewitz do not mention them in any of their statistics. The soft parts are generally in these luxations injured on the inner side of the joint. It is of little moment whether silk or catgut is used in sewing the nerve. On the other hand, tension of the nerve may be provided against by fixing it as above to the surrounding structures. The first movements in the paralyzed muscles appeared from 8 to 12 months after suture of the nerve, corresponding to cases and experience of other authors.—*Zeitschir. f. Chir.*, band 25, heft 3.

HENRY KOPLIK (New York).

II. Fatal Tonsillar Hæmorrhage. By J. N. HALL, M. D., (Sterling, Colorado). A man æt. 26, had suffered from repeated hæmorrhages from the mouth, as a consequence of acute tonsillitis. Styp-tics and pressure served to control the bleeding, and the removal of a large decomposing clot from the affected tonsil did not cause a recurrence. Eleven days later, during which the patient made good progress, the hæmorrhage recurred precipitating a fatal termination within a few seconds. The patient complained a short time before his death of a swelling in his throat, and it is believed that death was due to an aneurismal dilatation of the vessel at a point weakened by ulceration.—*Boston Med. and Surg. Jour.*, Dec. 22, 1887.

III. Aneurism in Persons under Twenty Years of Age. By W. W. KEEN, M. D. (Philadelphia). This paper reports two new cases in detail, and quotes abstracts of eleven others, which added to the fifteen quoted by R. W. Parker in the *Med. Chir. Trans.* for 1884 makes a sum total of 28 recorded cases.

No.	Sex and Age	Character.	Location.	Duration.	Complications.	Operation.	Result.	Reference.
1	F., 12		Left superficial palmar arch & left ulnar.		None	Ligature of brachial after failure with rubber bandage	Cure.	Woinarski, Aust. Med. Jour., May 15, 1884.
2	M., 14		Elbow.	Few days.	Ulcerative endocarditis.	None.	Death.	Pollock, Brit. Med. Jour., ii, 1886, p. 1033.
3	F., 8	Arterio-venous	Occipital artery and right and left transverse sinus.	Few days.	Caused by exposure to sun and accompanied by meningitis.	None.	Death.	Rizzoli, quoted by Bramana, Arch. f. klin. Chir., 1886, xxxiii, p. 6.
4	M., 18		Elbow.			Injections of liq. ferri.	Cure.	Jobert, Brauann loc. cit.
5	M., 16	Varicose.	Popliteal.		Vein and artery had been perforated by an exostosis	Amputation.	Cure.	Boling, Brauann, loc. cit.
6	M., 20		Left iliac.	Nine months.	Syphilis.	Supposed to be a bubo and opened.	Death.	A. C. Post, N. Y. Jour. Med. & Surg., Aug. 26, 1840.
7	F., 4		Arch of aorta.		Acute pericarditis.	None.	Death.	Hutchinson, Trans. Path. Soc. London, vol. 24.
8	r mo.		Ductus arteriosus.		Size of a nut, filled with a clot and impervious.	None.	Cure.	Martin, Bull. Soc. Anat., 1827, ii, 17.
9	o		Abdominal aorta.		E. do arteritis. Size of tumor caused dys-tocia.	None.	Death.	Phänomenow, Arch. f. Gynäk., 1881, xvii, 133.
10	10		Arch of aorta.	At least 5 years.	Suffocative attacks	None.	Unkno'n.	Rogers, Bull. Soc. Med. des Hôp. de Paris, 1863, p. 499.
11	M., 13		Arch of aorta.		Dyspnea; cardiac hypertrophy; vegetations of aortic valves.	None.	Death.	Sanné, Rev. mens. des mal. de l'enfance, Feb., 1887.
12	F., 18	Arterio-venous.	Ulnar artery.	3 or 4 years.	Second aneurism, probably of cure by Eschschmann's operation in the chest.	Apparent temporary cure by Eschmann's operation of ulnar.	Cure.	Present paper.
13	F., 8		Interosseous artery of right hand	7 or 8 years.	Appeared after a sprain of hand from gymnastics.	None.	Spontaneous cure.	Present paper.

IV. Simultaneous Ligature of the Right Carotid and Subclavian Arteries for Aneurism of the Innominate. By HERMAN MYNTER, M. D., (Buffalo). The case reported in this paper together with Ashhurst's case (*Phil. Med. and Surg. Reporter.*, July 16, 1887), added to the 38 cases collected by Rosenstirn (*ANNALS OF SURGERY*, vol. v. p. 57), makes 40 cases with 18 cures or 45% of recoveries. The author's case occurred in a woman, æt. 54, the symptoms of innominate aneurism having existed for a year and a half. The dyspnœa rapidly becoming unendurable, ether was administered, and under strict antisepsis heavy catgut ligatures were applied to the middle of the right carotid; and the third division of the subclavian outside of the scalenus anticus muscle. The patient was discharged cured 25 days later. Ten weeks after the operation no trace of the aneurism could be found, but the innominate artery could be felt pulsating, and seemed a little larger and firmer than normal.—*N. Y. Med. Rec.*, Oct 15, 1887.

JAMES E. PILCHER (U. S. Army).

HEAD AND NECK.

I. The Statistics of Tumors of the Head. By Dr. MELVILLE WASSERMAN (Heidelberg). The author has here collected 86 cases of tumors of the head, exclusive of those in and about the salivary glands. The cases are those included within the years 1877 and 1884 in the clinic of Czerny at Heidelberg. The tumors are classified under the headings of sarcomata, epulides, polypoid tumors, fibromata and enchondromata.

The ætiology of the sarcomata is obscure. In some cases the tumors developed on the site of some wart or nævus, or a trauma may have preceeded their development, but on the whole there are no positive data. Of 51 cases of sarcoma 23 were males; the ages ranged from 2 to 70 years, and the period of greatest frequency of occurrence was from 40 to 50 years. The average duration of the disease from the outset was 21 months. Operation was resorted to in 43 out of 51 cases. The disease in cases not operated upon lasted 37 months on the average. In those operated on 18 had a return of the disease and

died after an average of 18 months. The figures here show that the disease was shortened 18 months in duration by operative interference.

In all cases after a thorough extirpation of the growth the Paquelin cautery was resorted to and all suspicious foci in the wound thoroughly destroyed thereby. In 7 cases chloride of zinc, 5 and 10%, were used to cauterize the wounds. The best results were obtained in 8 cases of sarcoma of the integuments, of which 25% live still free from return of the disease 37 1/2% had returns. One case died of intercurrent diseases without return of tumor.

There were 5 cases of sarcoma of the cranial bones, twenty of the bones of the jaw, twelve of the nasal fossæ. Of 43 cases operated upon 16% died from the results of the operation; 27.9% were permanently cured; 41.8% died with a return of the disease; 6% died of unknown causes; 6% were lost to observation.

The complete mortality of those dying after operation was 55.8%. The average length of freedom from return of the disease was 46 months in one-fourth of the cases. Histologically, there were 14 cases of round-celled and 4 spindle-celled tumor, the rest being scattered among the giant, mixed celled tumors, osteo- and melano-sarcoma, fibro-, myxo- and angio-sarcoma.

The author has collected 22 cases of epulis. The sarcomatous tumors of this class are generally of giant-celled structure. Thirteen were of this character. Two were mixed forms and are giant and spindle-celled. The ætiology is obscure. In more than one-half of the cases carious teeth were present. The upper jaw was more frequently affected than the lower. The disease is more frequent in women (14 cases), and most cases occur between the 30th and 50th year of life. The ages ranged from 5 to 55 years. The general principle of extraction of the teeth, chiseling of the jaw and subsequent cauterization of the wound with Paquelin, presented itself in all cases. The result in all cases was satisfactory, and in 3 cases only was this result not attained. Cure was recorded in 71.4%. Return of the disease in 3 cases. The mean duration in cured cases was 1 1/2 years. In 13 cases of giant-celled tumors there were two cases of return of the disease. The prognosis on the whole is good, and the average duration of cure in Czerny's cases was 4 2/3 years.

The cases of the third class classified by the author include polypoid and fibroid tumors chiefly of the nasal fossa and naso-pharyngeal space. Five polypoid tumors were operated on, one dying of meningitis purulenta. The four remaining cases survived operation. They were sarcomata.

Ætiologically, it is interesting that in three of these four cases polypi had been removed. The author thinks that rough attempts at removal of these growths may have been an inciting cause to the increased cellular growth. Four of the above cases were in women.

The prognosis in these cases is to be made with caution on account of the dangers attending operation. The mean duration of cure (3 cases) is 56 months. As for the rest of the statistics, the author admits that on account of the limited number of cases no positive conclusions can be drawn. In conclusion, he records an interesting case of enchondroma of the ethmoid bone operated on in Prof. Czerny's clinic.—*Zeitsch. f. Chir.*, Bd. xxv, hft. 4 and 5.

II. Wounds of the Head. By S. GINGER (Heidelberg). This paper discusses those cases of traumatism of the head treated in the clinic of Czerny from 1877 to 1884, inclusive. There were 90 cases of wounds of the soft parts. The treatment consisted in shaving the head, cleansing with alcohol or turpentine, followed by washing with 2% to 5% solution of carbolic acid or a 1% solution of sublimate. The wound was then sutured with silk or catgut. In severe cases a drain or two was inserted. Iodoform was then dusted on the wound and a Lister dressing applied. It is noted that of 48 incised wounds 33 united by primary union. Of six wounds with large scalp flaps, two healed primarily. In favorable cases recovery from these wounds was completed in 4 to 8 days. If the secretions of the wound were profuse the Lister dressing was discarded and open treatment with salicylic solution or 2% acetate of aluminum was adopted. Erysipelas delayed recovery in 6 cases, proving fatal in one. In 23 cases of fractures of the bones of the cranium, the parietal, frontal, and temporal regions in the order named were the seat of traumatism. The patients were brought to the hospital in a state of unconsciousness

which lasted a variable length of time. In lesions of the brain substance an approximate localization is possible in most cases.

The brain and meninges are favorable seats for the development of various forms of inflammation (meningitis, encephalitis, pyæmia), and after years an apparent recovery may be complicated by the development of a series of symptoms due to brain abscess. Such abscesses are fatal in the majority of cases. Neuroses and psychoses may develop and the more so if the local lesion in the brain takes the form of trauma of a center with formation of a cicatricial tissue. Frequent congestions, intolerance of alcoholics, localized headaches, dizziness, paræsthesias, functional disturbance of the senses, all forebode such complication of a beginning psychosis. In extensive disturbance of the brain substance and large extravasation, deep coma and complete absence of reaction was present. There was also a reactionless pupil, irregular frequent pulse, increased temperature, shallow frequent respiration, in some cases of Cheyne-Stokes' character; death occurred in these cases from cardiac failure or œdema of the lung. The treatment was a strictly antiseptic one, and narcotics, etc., were used symptomatically, but it is to be remarked that where trephining was necessary this was carried out with the mallet, chisel, knife and scissors, seldom with the trephine. In addition to trephining for splintered fractures, abscess and depressions the indications laid down by von Bergmann and Wiesmann are recognized in this clinic. In 14 cases of trephining recovery resulted in 9 cases. In those cases which proved fatal after trephining the fatal issue was due rather to the severity of the injury. The operation rather retarded the fatal issue. Most favorable and rapid was the recovery of those fractures where the brain substance remained uncompromised. The less the extent of the bony lesion the more rapid and complete the recovery. Where the motor centers were affected by the traumatism, functional nervous disturbances resulted which may, after a period, have retrogressed. The prognosis is best in the first class of cases, and reserved where the brain substance, but not the motor centers, were affected. In children especially a certain reserve in prognosis should be the rule, for here, though extensive lesions may end in immediate recovery, yet the sta-

tistics show that such patients in later life form a prominent quota of those suffering psychoses. In compound fractures of the skull, therefore, lesions of the absolute cortical centers give a more unfavorable prognosis than lesions of the relative cortical centers. If paralysis has not improved after five or six months after compound fractures of the skull, they may be considered permanent. In all extensive compound fractures the possibility of abscess must be considered. In all injuries of the head, moreover, where the brain substance is injured, psychoses and neuroses may develop subsequently. Strict antisepsis should be followed in all these cases. Author records 12 cases of fractures at the base of the skull; 3 proved fatal. The prognosis is favorable in those cases where the brain symptoms are slight and short in duration. The most frequent disturbances of hearing and vision improve if the tympanum alone has been ruptured and the labyrinth in the one case and the optic nerve in the other have not been compromised. Paralysis are permanent which do not recur to the normal condition or show signs of improvement within a few months. The possibilities of subsequent brain abscess or psychoses must be considered. The frequent douching of the nose and ears with antiseptic solutions is imperative. The antiseptic tamponade of the ear is advocated. In obscure concussions of the brain (Beck) where the lesion of the brain substance is slight capillary apoplexia and absorbable exudate, the prognosis is good as regards the immediate recovery of the patient. It is a guarded prognosis, however, when future psychical complications are in question.—*Deutsch. Zeitsch. f. Chir.*, Bd. xxvi, hft. 3 and 4.

III. *Œsophagotomy for Foreign Bodies.* Dr. GEO. FISCHER (Hannover). The author has collected the details of eighty cases of *Œsophagotomy* found recorded since the year 1738; this includes one case of his own. Of the number 48 were males. Among the bodies swallowed were 25 bones and 22 teeth settings, the rest being coins, needles, fish bones, stones, nuts, foods, blades, etc. In the eighty cases there were 16 deaths, 2 of which occurred immediately after the operation.

Eliminating these two cases we have a mortality of 20%. The

shortest time elapsing between the swallowing of the foreign body and operation was a half hour (Lawson), the longest interval twelve years (Maclean). The operations performed within the first two days of the accident gave a mortality of 15%, and where the operation was delayed to the third or fourth day the mortality reached 30%. The oldest patient operated on with success was 70 years of age. Œsophagotomy, therefore, is not a dangerous operation. Cure and healing of the deep wound resulted in 37 cases within two to six weeks. The rule is a complete closure of the wound; permanent fistula of the œsophagus does not occur. Strictures are not to be found. In only two cases did stricture with communication with the air passages result. Among the causes of death we find in 16 cases, 7 of ulceration or gangrene of the œsophagus, with following abscess of the pleura, pneumonia, bronchitis, gangrene of the lung. In 6 cases the patient died of exhaustion. Once sepsis supervened, in another hemorrhage, and in the last phthisis of the lung. Danger of exhaustion is great in children and old persons. Death is more frequent in cases of postponed operation than from the operation itself.

In cases where the foreign body has been recently swallowed operation should be undertaken the following day, after other methods have failed. If several days have elapsed since the accident, and a single attempt with sounds, etc., has failed, operation should be proceeded to *at once*. If the nature of the foreign body (knife) makes the methods with money catcher, etc., dangerous, operation should be at once performed. In cases where infiltration of the tissues of the neck has set in œsophagotomy is immediately indicated. As to the technique of the operation there is great variance among different operators. The incision in the neck is generally over the space between the trachea and the border of the sterno-mastoid. It is important that the tissues beneath the skin once exposed, the handle of the scalpel or some blunt instrument be used to gain the œsophagus, rather than a knife. Broad blunt hooks, by drawing aside the dangerous structure, give good service. We should follow the plan of first exposing the lateral lobe of the thyroid, then the lateral border of the trachea, and finally the œsophagus. If the thyroid is swollen the operation is complicated

The recurrent nerve is the principal structure we should avoid wounding, aside from the great vessels. If the foreign body can be felt we should open the œsophagus over the same, first fixing the tube by means of tenacula. If this is not the case the sound carried into the œsophagus through the mouth is a necessary guide. The author has found that foreign bodies rarely are situated partly outside the œsophagus. In other cases the operator has failed to find the foreign body after opening the œsophagus. The present surgical procedure demands the closure of a clean incised œsophageal wound. Perforation of the œsophagus, gangrene, abscess or infiltration of the neighboring tissues excludes suturing of the œsophagus, requiring the œsophageal wound to be left open and a drain inserted. Every patient, whether the œsophagus has been closed or not, may be allowed to swallow fluid diet a few hours after operation without the aid of the 'stomach tube. Œsophagotomy, performed early, is a simple operation, more difficult in small children and patients with short necks, or where infiltration of the surrounding tissues or thyroid exists. The extraction of bodies in any way fixed in the wall of the œsophagus gives rise to great difficulties, and complete and quiet narcosis is necessary for the application of good sutures.—*Deutsche Zeitsche f. Chir.*, Band xxv, hft. 6.

HENRY KOPLIK (New York).

CHEST AND ABDOMEN.

I. Gastrotomy for Digital Exploration of the Œsophagus and Removal of a Foreign Body. By WILLIAM T. BULL, M. D. (New York). This case should be considered in connection with that of Richardson, (*ANNALS OF SURGERY*, vol. v, p. 124), and is the second case of this operation to be recorded. A negro boy, æt. 16, had swallowed a peach stone, which had become impacted in the œsophagus, nine days before operation. He had lost much flesh, and was weak, and complained of thirst and occasional nausea, but vomited only when he attempted to swallow, and had no pain; nothing whatever could be ingested. An œsophageal bougie struck against the foreign body 13 inches from the incisor teeth. Efforts to remove it with coin-catchers or to get beyond it with bougies, having proven un-

successful, the abdominal cavity was opened by an incision 3 inches long, extending from the level of the ninth intercostal cartilage to 2 inches above the umbilicus. No foreign body could be felt along the diaphragm, and the stomach wall was caught up at a point midway between the two curvatures, and 3 inches from the pylorus, and an incision one inch and a quarter long made, through which the finger was passed, after the lips of the abdominal and gastric wounds had been fastened together. The body could not be felt when the abdominal wall was depressed and the finger pushed up as far as possible, until a finger was passed and pressed gently upon it from above. Finding it impossible to grasp it from below, a slender bougie was passed up into the mouth from below carrying a strong silk thread to the lower extremity of which was tied a sponge a half inch in diameter and an inch and a half long; when this was pulled through the body was dislodged; and brought within grasp of the fingers by a larger sponge introduced in the same manner, when it was removed. The gastric mucous membrane was sutured with 8 catgut sutures, and the peritoneal coat with 10 or 12 Lembert sutures of fine carbolized silk. The abdominal incision was closed with a continuous peritoneal suture of catgut and interrupted silk sutures through the other layers, and dressed with bichloride gauze. The operation occupied an hour and a quarter. The wound healed entirely by primary union. *Recovery* was complete in two weeks and a half. Rectal enemata were continued for 5 days, for the first day he received nothing by the mouth, on the second brandy and water and beef tea at frequent intervals, and on the fifth day his diet was unlimited.—*N. Y. Med. Jour.* Oct. 29, 1887.

II. Removal from the Small Intestine of a Spoon Swallowed Three and a half Years Previously. By E. W. WALKER, M. D. (Cincinnati). A sword swallower, upon a wager, swallowed a teaspoon which passed from the stomach into the intestine where it became impacted. Three and a half years later, well marked symptoms of occlusion having appeared, an incision about 2 inches in length was made down to the peritoneum in the median line below the umbilicus. Inflammatory adhesion had attached the gut to the parie-

tal peritoneum, so that, the exact location of the foreign body having been ascertained by exploration with a hypodermic syringe needle, the incision was opened directly without intruding upon the peritoneal cavity. The spoon was then carefully withdrawn, the gut wound closed with 3 silk sutures and the external wound with silver wire. Union appeared to have taken place by first intention throughout, but a fæcal fistula appeared on the seventh day, and persisted for 9 days when it closed. The bowels moved satisfactorily on the eighth day, and recovery occurred without stenosis at the point of operation. *Lancet-Clinic*, Dec. 10, 1887.

JAMES E. PILCHER (U. S. Army).

III. Case of Gastrostomy. By CHARLES EDWARD HOAR, M. D. (Maidstone), and JOHN KNOWLES, M. R. C. S. (Maidstone). A man, æt. 60, attended at the West Kent Hospital, with a history of indigestion of many years standing, and difficulty of swallowing for two years. He was spare and with an anxious expression. Nothing abnormal detected in chest, but on auscultating over the cervical vertebræ during deglutition, passage of fluid was heard delayed. No specific or traumatic history, family history good. A medium-sized œsophageal bougie was arrested and gripped near the stomach. For a month he was fed through an œsophageal tube (size No. 7 catheter), which was changed every 4 days. As he was losing weight, and suffering from a cough with frothy expectoration, and much wheezing in both lungs, gastrostomy was decided upon. An incision, 3 inches, was made in the usual position, and the peritoneum divided on a director. The transverse colon which presented was drawn down, and the stomach brought into view, pinched up with the left hand, a small portion withdrawn through the wound and transfixed with two hare-lip pins, one supporting the portion transfixed at the upper angle of the wound, and the other at the lower angle. One or two wire sutures were used to bring the ends of the incision in apposition, and the wound was covered with protective and carbolized wool. The next day the pulse was 100, temperature 101°. Was fed by enemata every 4 hours. Still wore œsophageal tube, although plugged. Swallowed fluids more freely than before

operation but the attempt causes dragging pain at the wound. Adhesions having formed all round, a tenotomy knife was passed into the stomach wall and a small piece of drainage tube inserted, the end being threaded and strapped to the abdominal wall. One hare-lip pin was withdrawn and two days later, the other; at that time the drainage tube, through and around which much oozing, was changed for a plugged piece of elastic catheter. On the ninth day and for eight days afterwards food was injected through the opening, a small india rubber trachotomy tube being substituted for the catheter. While for a time the patient was able to do light work and to feed himself by means of an irrigator and long tube, he continued to fail, and *death* occurred 4 months after the operation. At the autopsy, the lower margin of the stricture was found to be one and a half inches above the cardiac opening, extending upwards for two and a half inches; its upper orifice was a mere chink, and the canal very sinuous. It was a well marked scirrhus growth, and involved the thoracic duct. The artificial stomach opening was midway between the greater and lesser curvatures, 4 inches from the pylorus and three and a half from the cardiac orifice. The integument was firmly and evenly united at the stomach, the adhesions being more than one-fourth an inch thick. Between the opening and the pylorus the wall was hypertrophied. The method of fixing the stomach by hare-lip pins is that employed by Mr. Barrow at the West London Hospital, and previously by Mr. Macnamara, (See ANNALS OF SURGERY, vol. i, No. 4). The advantages are its easy application and secure fixation.—*Lancet*, Aug. 20, 1887.

P. S. ABRAHAM (London)

IV. **Gastrostomy for Cancer of the Œsophagus.** By J. COLLINS WARREN, M. D. (Boston). A man, æt. 56, had suffered from cancer of the œsophagus which had finally constricted it to the point of impermeability. The abdomen was then opened and the stomach was attached to the wound, according to the method of Howse described in Heath's *Dictionary of Surgery*. The patient was fed entirely by enemata, ingestion being impossible, until the ninth day when a small oblique opening was made into the stomach and a fine gum elastic catheter introduced. Owing to a cough, the wound did

not heal completely, and the opening became enlarged causing considerable leakage. A rubber tube with a flexible collar within and without, was introduced into the opening and used with success until the patient's death from exhaustion consequent upon malassimilation, 4 months after the operation.—*N. Y. Med. Rec.*, Nov. 5, 1885.

V. Laparotomy Complicated by True Hæmorrhagic Diathesis. By CHARLES CARROLL LEE, M.D. (New York). Under a perineorrhaphy previously performed the patient had shown a marked hæmorrhagic tendency, but when, being 26 years of age and suffering greatly from ovaritis and salpingitis, removal of the appendages was undertaken, copious and persistent bleeding accompanied every incision. When the organs were extirpated the pelvis was found to be full of blood, but the main source could not be found; blood oozed from the entire under surface of the broad ligaments and from the base of the pelvis. Prolonged pressure with sponges served to completely check the bleeding, and the wound was closed and dressed. Four hours later signs of collapse appeared and examination showed a recurrence of the hæmorrhage, the wound was reopened and additional catgut ligatures applied to the chief bleeding points and torsion to others. Collapse was averted some hours later by infusion of 10 ounces of 2½% salt solution at 100°F. Convalescence followed with satisfaction.—*N. Y. Med. Rec.*

JAMES E. PILCHER (U. S. Army).

VI. On the Indication and Value of Incising the Intestine in Herniotomy (Hernioenterotomy). By HUGO FUHLROTT (Birkungen). This paper records three cases of inguinal herniæ of large size in which Rosenberger operated for the relief of strangulation. In these cases after exposing the contents of the sac and incising the structures constricting the neck of the hernial sac, it was impossible to accomplish reposition. The cases had been previously treated with taxis; in one case the efforts of the surgeon to replace the gut resulted in a rupture of the intestinal walls; an escape of fluid and gas resulted and after sewing up the intestinal wound the gut was easily replaced.

The patient, æt. 78, made a good recovery. In a second case a patient, æt. 36, with inguinal hernia of left sides, after opening the sac and incising the ring it was impossible to replace the contents of the sac on account of the distention of the intestine and the great intra-abdominal pressure. A transverse incision of 1 cm. in the most dependent portion of the gut resulted in a discharge of gas and contents; the gut was then sewed up and easily replaced, resulting in recovery. In another case, æt. 71, of double inguinal hernia, the hernia on the right side became strangulated. The immense size of the hernia and distention of the gut caused the same difficulties as to reposition. Incision was made as above and intestinal contents evacuated then the gut was cleansed and sewed up and easily replaced into the abdominal cavity, with recovery. But these cases were able to perform heavy labor after operation which must in every way be considered successful. In these cases, therefore, of large scrotal hernia or eventration, though the patients are mostly of advanced age, the prognosis of the operation is not bad. Petit's procedure of leaving the intestines exposed and covering them with moistened cloths is not aseptic and involves changes. The gut has often been incised after herniotomy, either accidentally or with express object and the sac contents subsequently replaced into the abdominal cavity. In most of these cases the intestinal wound was not closed, the patients for the most part recovered (Dinkelacker, v. Ludwig, Kruger, Linhardt). In some cases the intestine was simply punctured with a needle or with trocar (Fischer). If the intestine is gangrenous when the sac is opened the best procedure is to fix the gut to the abdominal wall and form an artificial anus (Rosenberger). It is only when the intestine is still in good condition that the above incision is indicated. The size of the incision in the gut must vary with the necessities of each case. With strict antisepsis the incision and opening of the healthy intestines appears to be attended with no danger. Though many surgeons have in early days replaced the gut without closing the incision, it is the safer procedure to close the incision in the intestine with silk suture.—*Deutsch. Zeitschr. f. Chir.*, Bd. xxv, hft. 4 and 5.

HENRY KOPLIK (New York).